

C L A I M S

1. A peptide which comprises an amino acid sequence of the formula:

5 X-Y-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 4)

wherein X represents Ser, Ala, Abu, Arg, Lys, Orn, Cit, Leu, Phe, or Asn, and Y represents Tyr or Met, and which has an activity to induce CTLs.

2. The peptide according to claim 1 which comprises any one of the amino acid sequences selected from a group consisting of:

10 Ser-Tyr-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 5),

Ala-Tyr-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 6),

Abu-Tyr-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 7),

Arg-Tyr-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 8),

Lys-Tyr-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 9),

15 Orn-Tyr-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 10),

Cit-Tyr-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 11),

Leu-Tyr-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 12),

Phe-Tyr-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 13),

Asn-Tyr-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 14),

20 Ser-Met-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 15), and

Ala-Met-Thr-Trp-Asn-Gln-Met-Asn-Leu (SEQ ID NO: 16).

3. A peptide which consist of an amino acid sequence of SEQ ID NO: 4, and which has an activity to induce CTLs.

25 4. The peptide according to claim 3, which consists of any one of the amino acid sequences selected from a group consisting of SEQ ID NOs: 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16.

5. A polynucleotide which encodes the peptide according to any one of claims 1 to 4.
6. An expression vector which contains the polynucleotide according to claim 5.
- 5 7. A cell which comprises the expression vector according to claim 6.
8. A process for preparing a peptide according to any one of claims 1 to 4, which comprises culturing the cell according to claim 7 in a condition operable for the expression of the peptides.
- 10 9. An antibody which specifically binds to the peptide according to any one of claims 1 to 4.
10. An antigen-presenting cell on which a complex between a cancer antigen peptide derived from the peptide according to claim 1 or 2 and an HLA-A24 antigen is presented.
- 15 11. The antigen-presenting cell according to claim 10, on which a complex between a cancer antigen peptide consisting of the peptide according to claim 3 or 4 and an HLA-A24 antigen is presented.
- 20 12. A CTL which recognizes a complex between a cancer antigen peptide derived from the peptide according to claim 1 or 2, and an HLA-A24 antigen.
13. The CTL according to claim 12, which recognizes a complex between a cancer antigen peptide consisting of the peptide according to claim 3 or 4, and an HLA-A24 antigen.
- 25 14. A pharmaceutical composition which comprises the peptide according to any one of claims 1 to 4, the polynucleotide according to claim 5, the expression vector according to claim 6, the

cell according to claim 7, the antigen-presenting cell according to claim 10 or 11, or the CTL according to claim 12 or 13, together with a pharmaceutically acceptable carrier.

15. The pharmaceutical composition according to claim 14, in
5 which the composition is used as a cancer vaccine.

16. Use of the peptide according to any one of claims 1 to 4, the polynucleotide according to claim 5, the expression vector according to claim 6, the cell according to claim 7, the antigen-presenting cell according to claim 10 or 11, or the CTL according to
10 claim 12 or 13, in the manufacture of a cancer vaccine.

17. A method for treatment or prevention of a cancer, which comprises administering a therapeutically or prophylactically effective amount of the peptide according to any one of claims 1 to 4, the polynucleotide according to claim 5, the expression vector according to
15 claim 6, the cell according to claim 7, the antigen-presenting cell according to claim 10 or 11, or the CTL according to claim 12 or 13, to a cancer patient in need who is positive for an HLA-A24, and positive for WT1.